

CONSTRUCTION PERMIT

PERMITTEE

Armstrong World Industries, Inc.  
Attn: Kathy Gordon  
1401 North Hobbie Avenue  
Kankakee, Illinois 60901

**Draft**

Application No.: 04080072

I.D. No.: 091804AAD

Applicant's Designation:

Date Received: August 31, 2004

Subject: Modification to Line 5

Date Issued: ---

Location: 1401 North Hobbie Avenue.

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of a modification to the existing line 5 as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1.0 Production Line 5

1.1.1 Description

The production line 5 procedures plastic composite floor tile. Raw materials are first heated and mixed. The heated mix is pressed into a continuous "blanket" between two large rolls, then cooled, dried, and sized. Next, the blankets are heated and inserted into the nip of a set of mill rolls and pressed into a continuous sheet. After subsequent heatings and gauge reductions, the continuous sheet is cooled, coated with wax, dried, buffed, and stamped into individual tiles.

The modification to the Line 5 will consist in expanding the line from single to double width tile. The operations downstream of the existing line: mills, blanket heaters, calendars, wax applicator, buffer and tile punch will be modified to accommodate a wider tile blanket.

Line 5 will also produce it's own accent chips, or "mottle", to support the double width tile production. Under a maximum production scenario, mottle would be supplied by the existing Mottle Line(EU-3), which is not being altered as part of the Line 5 widening project.

1.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Production Line No. 5 (EU-13)	Commercial floor tile production	Baghouses

#### 1.1.3 Applicability Provisions and Applicable Regulations

- a. The "affected line" for the purpose of these unit-specific conditions, is the production line as specified in Condition 1.1.2 above.
- b. The affected line is subject to 35 IAC 212.321, which provides that: No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 IAC 212.321(c).
- c. The affected line is subject to 35 IAC 215.301, which provides that: No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere from any emission unit, except for the following exception: If no odor nuisance exists the limitation of this condition shall apply only to photochemically reactive material.

#### 1.1.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on this project not being subject to the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21, because the increases in emissions as a result of this modification at 14.53 and 28.5 tons/year for particulate matter (PM) and volatile organic material (VOM), respectively are less than the significant increase thresholds of 15 tons/year for PM10 and 40 tons/year for VOM. (See Attachment A).
- b. This permit is issued based on the project not being subject to Section 112(g) of the Clean Air Act, Hazardous Air Pollutants (HAPs), because emissions from HAPs are less than 10 tons/year for single HAP and less than 25 tons/year for all combined HAPs.

#### 1.1.5 Operating Requirements

- a. The Permittee shall follow good operating practices for the affected line, including

periodic inspection, routine maintenance and prompt repair of defects.

- b. i. Total dry material used in the affected line shall not exceed 12,600 tons/month and 75,600 tons/year.
- ii. Total usage of VOM containing materials(Wax and plasticizer) in the affected line shall not exceed 525 tons/month and 3150 tons/year.
- c. This permit is issued based no physical change in the existing mottle line(EU-3).

#### 1.1.6 Emission Limitations

- a. Emissions of PM/PM10 from the affected line shall not exceed 0.45 lb/ton dry material and 17.00 tons/year.
- b. Emissions of VOM from the affected line shall not exceed the following limitations 6.0 tons/month and 35.17 tons/year.
- c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

#### 1.1.7 Operating Requirements

Upon request by the Illinois EPA, the Permittee shall have testing conducting for PM emissions of the affected line and baghouse. Reference to CAAPP permit for procedures.

#### 1.1.8 Monitoring Requirements

None

#### 1.1.9 Recordkeeping Requirements

The Permittee shall keep the following records for the affected line and the existing mottle line, which supply mottle to the affected line.

- a. Log of inspection and maintenance of the affected line and baghouse.
- b. Dry material throughput (tons/month and tons/year);
- c. Total usage of VOM containing material (tons/month and tons/year)

- d. VOM content of the material used in the affected line and mottle line.
- e. Monthly and annual PM/PM10 and VOM emissions with all supporting calculation and documentation.

#### 1.1.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of an affected line with the permit requirements as follows. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

- i. Deviations from emission limits shall be reported in 30 days.
- ii. Other deviation shall be reported in a quarterly reports.

#### 1.1.11 Compliance Procedures

Compliance with the PM/PM10 and VOM emission limits in Conditions 1.1.3 shall be based on the recordkeeping requirements in Condition 1.1.9 and the appropriate emission factor and formulas listed below:

##### i. PM/PM10 Emissions

Emissions(Tons/year) = dry material throughput(tons/year) multiplied by emission factor(lb/ton dry material) divided by 2000.

##### ii. VOM Emissions

Emissions(Tons/year) = VOM containing material throughput(lb/year) multiplied by emission factor(lb/1000 lbs VOM material) divided by 2000.

Please note that the Permittee is allowed to operate the changes to the affected line 5 under this permit until the CAAPP Permit is next reissued.

Ricardo Ng

RNG

**Attachment A**

Summary of emissions change

Table 1. PM/PM10 emissions change

<u>Equipment</u>	<u>Future Tons/year</u>	<u>Average 2002/2003 Tons/year</u>	<u>Increase in Emissions Tons/year</u>
Line 5	17.00	5.70	11.30
*Mottle Line	3.23	0.00	<u>3.23</u>
Production for Line 5			
<b>Total</b>			14.53

Table 2. VOM emissions change

<u>Equipment</u>	<u>Future Tons/year</u>	<u>Average 2002/2003 Tons/year</u>	<u>Increase in Emissions Tons/year</u>
Line 5	35.17	11.79	23.38
*Mottle Line	5.12	0.00	<u>5.12</u>
Production for Line 5			
<b>Total</b>			28.5

\* Note: This is based on secondary emissions from the increase in utilization of the mottle line (EU-3) supporting production in Line 5.

This attachment provides a summary of the maximum emissions change from the production line 5. In preparing this summary, the Illinois EPA used the maximum annual raw material usage in Line 5, producing tile with mottle supplied by the existing mottle line (EU-3), which resulted in the maximum increase in emissions from the project. The resulting maximum emission increase are below the levels, e.g., 15 tons per year for PM/PM10 and 40 tons/year of VOM at which this source would be considered a major modification for purposes of the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled and there is less operating hours.

RNG